IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

DECLARATION

I, Angus Forsyth MA (Cantab.), MPhil, PGDip, DipTrans (IoL), translator to Messrs. Falcon Translations Ltd of Capital Tower, 91 Waterloo Road, London SE1 8RT, England, do solemnly and sincerely declare as follows:

1. That I am well acquainted with the English and German languages;

2. That the following is a true translation made by me into the English language of the attached German documents;

3. That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true;
   and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardise the validity of the application or any patent issued thereon.

Signed, this seventh day of June 2006,

London SE1 8RT, England

Patent claims

1. A high frequency filter of coaxial construction, comprising one or more resonators (R) having the following features:

- an electrically conductive internal conductor configured as an internal conductive tube (1);
- an electrically conductive external conductor (2);
- an electrically conductive base (3) which electrically interconnects the internal conductor and the external conductor (2);
- a cover (5) covering the high frequency filter with respect to the base (3) and having an inner side (5a) and outer side (5b), the inner side (5a) pointing toward a free end (1a) of the internal conductive tube (1a);
- a dielectric layer (6) having a relative dielectric constant greater than 2 is arranged between the outer side (5b) of the cover (5) and the free end (1a) of the internal conductive tube (1);
- the radial extent of the dielectric layer (6) substantially covers the cross section of the internal conductive tube (1) at the free end (1a) thereof;

wherein

- the dielectric layer (6) is arranged on or fastened to the cover (5).

2. The high frequency filter as claimed in Claim 1, wherein the dielectric layer (6) is inserted in a recess in the inner side (5a) of the cover (5).

3. The high frequency filter as claimed in Claim 2, wherein the dielectric layer (6) is held in the recess by an interlocking fit, in particular by an edge (5'), projecting

beyond the edge of the dielectric layer (6), on the inner side (5a) of the cover (5).

4. The high frequency filter as claimed in either Claim 2 or Claim 3, wherein the dielectric layer (6) is closed by the inner side (5a) of the cover (5).

5. The high frequency filter as claimed in any one of the preceding claims, wherein the dielectric layer (6) is held on the inner side (5a) of the cover (5) by an adhesion means, in particular adhesive.

6. The high frequency filter as claimed in any one of the preceding claims, wherein the relative dielectric constant of the dielectric layer (6) is ≥ 5, preferably ≥ 8, particularly preferably ≥ 9.

7. The high frequency filter as claimed in any one of the preceding claims, wherein the relative dielectric constant of the dielectric layer is ≥ 40, preferably between 40 and 80, particularly preferably between 60 and 80.

8. The high frequency filter as claimed in any one of the preceding claims, wherein the dielectric layer (6) comprises ceramic material, in particular aluminum oxide ceramic.

9. The high frequency filter as claimed in any one of the preceding claims, wherein the surface area of the radial extent of the dielectric layer (6) is at least twice the surface area of the cross section of the internal conductive tube (1) at the free end (1a) thereof.

10. The high frequency filter as claimed in any one of the preceding claims, wherein the cross section of the internal

conductive tube (1) is substantially circular at the free end (1a) thereof.

11. The high frequency filter as claimed in any one of the preceding claims, wherein the radial extent of the dielectric layer (6) is substantially circular.

12. The high frequency filter as claimed in Claims 10 and 11, wherein the diameter (d1) of the radial extent of the dielectric layer (6) corresponds at least to the diameter (d2) of the cross section of the internal conductive tube (1) at the free end (1a) thereof.

13. The high frequency filter as claimed in Claim 12, wherein the diameter (d1) of the radial extent of the dielectric layer (6) is at least 1.5 times the diameter (d2) of the cross section of the internal conductive tube (1) at the free end thereof.

14. The high frequency filter as claimed in any one of Claims 11 to 13, wherein the external conductor (2) is an external conductive tube having a substantially circular cross section and the diameter (d3) of the external conductive tube is at least twice the diameter of the radial extent of the dielectric layer (6).

15. The high frequency filter as claimed in any one of the preceding claims, wherein the high frequency filter comprises a plurality of resonators (R), a single continuous, at least partially strip-like dielectric layer being provided for all of the resonators (R).

16. The high frequency filter as claimed in any one of the preceding claims, wherein the resonators (R) are configured and coupled in such a way that a duplex switch is formed.

17. The high frequency filter as claimed in any one of Claims 1 to 16, wherein the resonators (R) are configured and coupled in such a way that a band-pass filter or a band-stop filter is formed.